

Appendix A

1997 Environmental Monitoring Program



*The WVDP Supports a Bluebird and Wood Duck Nesting-box Program
Sponsored by the Springville Field and Stream Club*

THIS PAGE INTENTIONALLY
LEFT BLANK

1997 Environmental Monitoring Program

The following schedule represents the West Valley Demonstration Project (WVDP) routine environmental monitoring program for 1997. This schedule met or exceeded the minimum program specifications needed to satisfy the requirements of DOE Order 5400.1. It also met requirements of DOE 5400.5 and DOE/EH-0173T. Specific methods and recommended monitoring program elements are found in DOE/EP-0096, *Effluent Monitoring*, and DOE/EP-0023, *Environmental Surveillance*, which were the bases for selecting most of the schedule specifics. Additional monitoring was mandated by air and water discharge permits (40 CFR 61 and SPDES), which also required formal reports. Specifics are identified in the schedule under Monitoring/Reporting Requirements.

Results from all locations except groundwater monitoring points are summarized in Quarterly Environmental Monitoring Data Reports (QEMDRs). Groundwater monitoring data are summarized in quarterly groundwater monitoring reports. A computerized environmental data-screening system identifies analytical data that exceed pre-set limits. All locations are checked monthly for trends or noticeable results in accordance with criteria established in Documentation and Reporting of Environmental Monitoring Data (West Valley Nuclear Services Co., Inc. April 13, 1995). Reportable results are then described in the Monthly Trend Analysis Report (MTAR) together with possible causes and corrective actions, if indicated. A WVDP Effluent Summary Report (ESR) is transmitted with each MTAR.

Schedule of Environmental Sampling

The following table is a schedule of environmental sampling at the WVDP. Locations of the sampling points are shown on Figures A-1 through A-9. The index on pp. A-v through A-vii is a list of the codes for various sample locations. Table headings in the schedule are as follows:

- **Sample Location Code.** Describes the physical location where the sample is collected. The code consists of seven or eight characters: The first character identifies the sample medium as Air, Water, Soil/Sediment, Biological, or Direct Measurement. The second character specifies on-site or off-site. The remaining characters describe the specific location (e.g., **AFGRVAL** is Air off-site at **GR**eat **VAL**ley).
- **Monitoring/Reporting Requirements.** Notes the bases for monitoring that location, any additional references to permits, and the reports generated from sample data. Routine reports cited in Appendix A are the Effluent Summary Report (ESR), the Monthly Trend Analysis Report (MTAR), the Quarterly Environmental Monitoring Data Report (QEMDR), the On-site Discharge Information System (ODIS) report, the Air Emissions Report (NESHAP), and the annual Site Environmental Report (SER).
- **Sampling Type/Medium.** Describes the collection method and the physical characteristics of the medium.
- **Collection Frequency.** Indicates how often the samples are collected or retrieved.
- **Total Annual Sample Collections.** Specifies the number of discrete physical samples collected annually for each group of analytes.
- **Analyses Performed/Composite Frequency.** Notes the type of analyses of the samples taken at each collection, the frequency of composite, and the analytes determined for the composite samples.

Summary of Monitoring Program Changes for 1997

Location Code

Description of Changes

Well Points

Four of seven radiological sampling points on the north plateau east of the main plant were discontinued in 1997.

Index of Environmental Monitoring Program Sample Points

Air Effluent and On-site Ambient Air (Fig. A-1 [p. A-45])

ANSTACK	Main Plant	A-1
ANSTSTK	Supernatant Treatment	A-1
ANCSSTK	O1-14 Building	A-1
ANCSRFK	Size-reduction Facility	A-1
ANVITSK	Vitrification Heating, Ventilation, and Air Conditioning Exhaust	A-1
ANSEISK	Seismic Sampler (Vitrification Back-up)	A-1
ANCSPFK	Container Sorting and Packaging Facility	A-1
ANSUPCV	Supercompactor	A-3
OVES/PVUs	Outdoor Ventilated Enclosures	A-3
ANLLWTV	Low-level Waste Treatment Ventilation (cold operations)	A-5
ANLLWTVH	Low-level Waste Treatment Ventilation (radioactive operations)	A-5
ANLAUNV	Contaminated Clothing Laundry Ventilation	A-5
ANLAGAM	Lag Storage Area (ambient air)	A-5
ANNDAAAM	NDA Area (ambient air)	A-5
ANSDAT9	SDA Trench 9 (ambient air)	A-5

Liquid Effluent and On-site Water (Fig. A-2 [p. A-46])

WNSP001	Lagoon 3 Weir Point	A-7
WNSP006	Facility Main Drainage	A-9
WNSP007	Sanitary Waste Discharge	A-9
WNSDADR	SDA Run-off	A-9
WNSWAMP	Northeast Swamp Drainage Point	A-11
WNSW74A	North Swamp Drainage Point	A-11
WN8D1DR	Waste Farm Underdrain	A-11
WNSP008	French Drain LLWTF Area	A-13
WNSP005	South Facility Drainage	A-13
WNCoolW	Cooling Tower	A-13
WNFR67	Frank's Creek East	A-15
WNERB53	Erdman Brook	A-15
WNNDADR	Disposal Area Drainage	A-15
WNCELD	Drum Cell Drainage	A-15
WNNDATR	NDA Trench Interceptor Project	A-15
WNSTAW Series	Standing Water	A-17
WNDNK Series	Site Potable Water*	A-19

* Not detailed on map

Index of Environmental Monitoring Program Sample Points (continued)

On-site Groundwater and Seeps (Fig. A-3 [p. A-47])

WNWNB1S	North Plateau Background Well	A-21
SSWMU # 1	Low-level Waste Treatment Facility Wells and WNSP008	A-21
SSWMU # 2	Miscellaneous Small Units Wells	A-21
SSWMU # 3	Liquid Waste Treatment System Wells	A-21
SSWMU # 4	HLW Storage and Processing Tank Wells	A-23
SSWMU # 5	Maintenance Shop Leach Field Wells	A-23
SSWMU # 6	Low-level Waste Storage Area Wells	A-23
SSWMU # 7	CPC Waste Storage Area Wells	A-23
SSWMU # 8	CDDL Wells and WNGSEEP	A-25
SSWMU # 9	NDA Unit Wells and NDATR	A-25
SSWMU #10	IRTS Drum Cell Wells	A-25
SSWMU #11	SDA Unit Wells	A-27
Well Points*		A-27
North Plateau Seeps		A-27

Off-site Surface Water (Fig. A-4 [p. A-48])

WFBCTCB	Buttermilk Creek at Thomas Corners	A-29
WFFELBR	Cattaraugus Creek at Felton Bridge	A-29
WFBCBKG	Buttermilk Creek Background	A-29
WFBIGBR	Cattaraugus Creek at Bigelow Bridge (background)	A-29

Off-site Drinking Water (Figs. A-5 [p. A-49] and A-9 [p. A-53])

WFWEL Series	Private Local Wells	A-31
--------------	---------------------	------

Off-site Ambient Air (Figs. A-6 [p. A-50] and A-9 [p. A-53])

AFFXVRD	Fox Valley Sampler	A-33
AFTCORD	Thomas Corners Sampler	A-33
AFRT240	Route 240 Sampler	A-33
AFSPRVL	Springville Sampler	A-33
AFWEVAL	West Valley Sampler	A-33
AFNASHV	Nashville Sampler (background)	A-33
AFBOEHN	Dutch Hill Road Sampler	A-33
AFRSPRD	Rock Springs Road Sampler	A-33
AFGRVAL	Great Valley Sampler (background)	A-33
AFBLKST	Bulk Storage Warehouse Sampler	A-33

* Not detailed on map

Index of Environmental Monitoring Program Sample Points (concluded)

Fallout, Sediment, and Soil (Figs. A-2 [p. A-46], A-4 [p. A-48], A-6 [p. A-50], and A-9 [p. A-53])

AFDHFOP	Dutch Hill Fallout	A-35
AFFXFOP	Fox Valley Fallout	A-35
AFTCFOP	Thomas Corners Fallout	A-35
AF24FOP	Route 240 Fallout	A-35
ANRGFOP	Rain Gauge Fallout	A-35
SF Soil Series	Air Sampler Area Soil	A-35
SFCCSED	Cattaraugus Creek at Felton Bridge	A-35
SFSDSED	Cattaraugus Creek at Springville Dam	A-35
SFBISED	Cattaraugus Creek Background Sediment	A-35
SFTCSED	Buttermilk Creek at Thomas Corners Sediment	A-35
SFBCSED	Buttermilk Creek at Fox Valley Road Background Sediment	A-35
SN On-site Soil Series		A-35
SNSW74A		A-35
SNSWAMP		A-35
SNSP006		A-35

Off-site Biological (Figs. A-5 [p. A-49] and A-9 [p. A-51])

BFFCATC	Cattaraugus Creek Fish, Downstream	A-37
BFFCTRL	Cattaraugus Creek Fish, Background	A-37
BFFCATD	Cattaraugus Creek Fish, Downstream of Dam	A-37
BFMREED	NNW Milk	A-37
BFMCOBO	WNW Milk	A-37
BFMCTLS	Milk, South, Background	A-37
BFMCTLN	Milk, North, Background	A-37
BFMWIDR	Southeast Milk, Near-site	A-37
BFMSCHT	South Milk, Near-site	A-37
BFVNear	Produce, Near-site	A-39
BFVCTRL	Produce, Background	A-39
BFHNear	Forage, Near-site	A-39
BFHCTLS	Forage, South, Background	A-39
BFHCTLN	Forage, North, Background	A-39
BFBNear	Beef, Near-site	A-39
BFBCTRL	Beef, Background	A-39
BFDNear	Venison, Near-site	A-39
BFDCTRL	Venison, Background	A-39

Direct Measurement Dosimetry (Figs. A-7 [p. A-51], A-8 [p. A-52], and A-9 [p. A-53])

DFTLD Series	Off-site Dosimetry	A-41
DNTLD Series	On-site Dosimetry	A-43